PROJECT REPORT

ON

"SAMSUNG MOBILE SERVICE CENTER MANAGEMENT SYSTEM"

By

………………….

ENROLLMENT NO.:……………………..

UNDER GUIDANCE OF

…………………………….

ACKNOWLEDGEMENT

With Candor and Pleasure I take opportunity to express my sincere thanks and obligation to my esteemed guide ………………………. It is because of her able and mature guidance and co-operation without which it would not have been possible for me tocomplete my project.

Finally, I gratefully acknowledge the support, encouragement & patience of my family, and as always, nothing in my life would be possible without God, Thank You!

DECLARATION

I hereby declare that this project work titled **"SUMSUNG MOBILE SERVICE CENTRE MANAGEMENT SYSTEM"** is my original work and no part of it has been submitted for any other degree purpose or published in any other from till date.
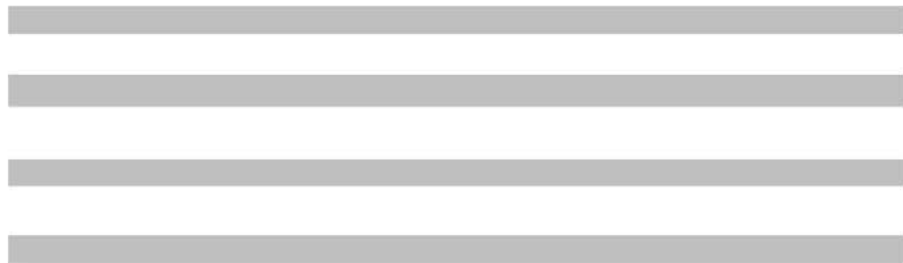
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1. INTRODUCTION & OBJECTIVES OF THE PROJECT

INTRODUCTION

This is a Project work is undertaken in context of partial fulfillment of the MCA.

At Samsung Mobile Repairing Center, experienced mobile engineers can perform prompt service on all makes and models of the Samsung Mobile. The qualified technical staff diagnoses challenging problems for all models. Online users and customers can send their Samsung mobiles Repair Request , to get free Mobile Repair Estimate.

Simply after filling the Mobile repair estimate form service center will send the customers estimate. If the customer accepts the estimate service center will start repairing the Mobile. Samsung mobile repairing engineers are experienced in troubleshooting and fixing the most challenging problems. Moreover, if a customer has faulty or broken mobile sitting around not being used, Samsung Service center will buy it from the customer at a fair price. Users have to click Sell your Mobile and provide service center with some information about the mobile. Samsung Mobile Service Center will respond shortly with an offer. I am confident that this software package can be readily used by non-programming personal avoiding human handled chance of error. This project is used by two types of users

    i.   Online Users.

    ii.   Administrator (management of the company).

Online users can check their service details, service center details, repair estimate etc. Administrator can maintain daily updates in the records. Administrator is must be an authorized user. He can further change the password. There is the facility for password recovery, logout etc.

OBJECTIVES OF THE PROJECT

The objectives of the project are to:

i. Develop a functional & usable Samsung Mobile Service Center Management System.

ii. This Website is useful for the users who are interested in Mobile repairing from authorized service centers.

iii. This Website is useful for users as follows:

- To get servicing tips to save money on repairing by repairing your Mobile yourself.

- Users can further get the information of the Showrooms and Service centers.

- To get upgrade and repair manuals.

- To get collection of free take apart instructions, guides, disassembly pictures.

- To get do-it-yourself (DIY) tips and tricks to fix mobile (portable) phones made by Samsung.

iv. This Website is useful for Administers as follows:

- To add Mobile details sold from a particular showroom.

- Add servicing details of the Mobile.

- Add service centers details.

- To store details of the stock available.

- Collecting Feedbacks from the customers or users.

- Report Generation

- Add information about the accessories and spare parts available in the company.

- To get rates of new Mobiles.

- To sale you old Mobiles.

Proposed System

1.   The web-site is to be accessed from any where anytime.

2. As the project is web-based so the software should be platform independent.

3.   The data is very important asset for corporation so strong authentication method is to be used to ensure security of information from malicious user.

4.   As the valuable data is being transferred through internet so the security of data is to be maintained at any cost.

5.   Easy to be customized in future. As the client demand some other additional features. The complexity of customer's company may be different or if mode of business changes then the system has capability to make appropriate modification to suite that change. Customization is key factor of designing this software.

6. The web-site manipulates data in an accurate way.

7.   Accuracy of all type of calculations are important and to be achieved at any cost.

8.   This should always be observed during the development of the software that the user is not from technical background, so the software should be user friendly and can be handled easily.

9. Storage of data should be easily accessible.

10. The data retrieval and other manipulation related task which is done at the database level should be fast enough. The database should support multiple users at a time.

11. The product should fulfill user's requirement.

ADVANTAGE

I have designed the given proposed system in the ASP and SQL SERVER to automate the process of Sumsung Mobile Service Centre Management System.

Performance: During past several decades, the records are supposed to be manually handled for all activities. The manual handling of the record is time consuming and highly prone to error. To improve the performance of the Company system, the computerized system is to be undertaken. The computerized project is fully computerized and user friendly even that any of the members can see the report and status of the company.

Efficiency: The basic need of this website is efficiency. The website should be efficient so that whenever a new user submits his/her details the website is updated automatically. This record will be useful for other users instantly.

Control: The complete control of the project is under the hands of authorized person who has the password to access this project and illegal access is not supposed to deal with. All the control is under the administrator and the other members have the rights to just see the records not to change any transaction or entry.

Security: Security is the main criteria for the proposed system. Since illegal access may corrupt the database. So security has to be given in this project.

DRAWBACKS OF CURRENT MANUAL- SYSTEM

- The current manual system has a lot of paper work and it does not deal with exact record details.

- To maintain the records of sale and service manually, is a Time-consuming job.

- With the increase in database, it will become a massive job to maintain the database.

- Requires large quantities of file cabinets, which are huge and require quite a bit of space in the office, which can be used for storing records of previous records.

- The retrieval of records of employees, customers, trouble tickets will be a tedious job.

- Lack of security for the records, anyone disarrange the records of your system.

ESTABLISH THE NEED OF NEW SYSTEM

1. Problem of Reliability: Current system is not reliable. It seems to vary in quality from one month to the next. Some times it gives good output, but some times the output is worst.

2. Problem of Accuracy: There are too many mistakes in reports.

3. Problem of timeliness: In the current system the reports and output produced is mostly late and in most of the cases it is useless because it is not on time.

4. Problem of Validity: The output and reports mostly contains misleading information. The customer's information is sometimes not valid.

5. Problem of Economy: The current system is very costly. We have to spend lots of money to keep the system up and going, but still not get the desired results.

6. Problem of Capacity: The current system is suffering from problem of capacity also. The staff for organization is very less and the workload is too much. Few peoples cannot handle all the work.

PROPOSED SYSTEM

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or if mode of business changes then the system has capability to make
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NEED

I have designed the given proposed system in the ASP.NET to automate the process of Sumsung Mobile Service Centre Management System. This project is useful for the authorities who keep track of all the Sumsung Mobile Service Centre Management System.

The following steps that give the detailed information of the need of proposed system are:

- Performance: During past several decades, the records are supposed to be manually handled for all activities. The manual handling of the record is time consuming and highly prone to error. To improve the performance of the system, the computerized system is to be undertaken. The computerized project is fully computerized and user friendly even that any of the members can see the report and status of their enquiries.

- Efficiency: The basic need of this website is efficiency. The website should be efficient so that whenever a new user submits his/her details the website is updated automatically. This record will be useful for other users instantly.

- Control: The complete control of the project is under the hands of authorized person who has the password to access this project and illegal access is not supposed to deal with. All the control is under the administrator and the other members have the rights to just see the records not to change any transaction or entry.

- Security: Security is the main criteria for the proposed system. Since illegal access may corrupt the database. So security has to be given in this project.

SOFTWARE & HARDWARE REQUIREMENTS

The need of today's software development is competence in a GUI based front- end tool, which can connect to Relational Database engines. This gives the programmer the opportunity to develop client server based commercial applications.

FRONT END

.N   ET programming tools are complete programming environments. It allows programmers to build a GUI program using the various on-screen controls such as buttons, text, menus, boxes etc. These controls are placed on a form and then the processing details related with each control are filled in.

In the business world, competitive strategies have become the order of the day to improve quality, cut costs and provide a high response customer service base. Most organizations today need to be market driven and do a lot of value addition to their products and services. This naturally calls for rational decision making, which requires information. Information Technology or IT provides that effective channel to support and implement this strategy. Client/Server is the technology that empowers the desktop, thus setting a trend for the way successful organizations will use technology in the next decade.

2.2 INTRODUCTION TO .NET

What is .NET?

- A vision of how information technology will evolve

- A platform that supports the vision

- A business model of software as a service

1. A Vision.

- Web sites will be joined by Web services

- New smart devices will join the PC

- User interfaces will become more adaptable and customizable

- Enabled by Web standards

2. A Platform.

- The .NET Framework

- ASP.NET

- .NET Enterprise Servers

  o Database, Messaging, Integration, Commerce, Proxy, Security, Mobility, Content Management

- .NET Building Block Services

  o Passport

  o .NET My Services ("Appin")

- Goal: make it incredibility easy to build powerful Web applications and Web services

3. A business model.

- Software as a service

- Subscription-based services

- Application hosting, e.g. bCentral

Interoperability: Web languages and protocols must be compatible with one another independent of hardware and software.

Evolution: The Web must be able to accommodate future technologies. Encourages simplicity, modularity and extensibility.

Decentralization: Facilitates Scalability and Robustness.

Web Services

- A programmable application component accessible via standard Web protocols
- The center of the .NET architecture
- Exposes functionality over the Web
- Built on existing and emerging standards are HTTP, XML, SOAP, UDDI, WSDL, …

What is the .NET Framework?

- A set of technologies for developing and using components to create:
  - Web Forms
  - Web Services
  - Windows Applications

- Supports the software lifecycle
    - Development
    - Debugging
    - Deployment
    - Maintenance

Application Architectures

- The Different types of Applications may vary from single-tier desktop applications (applications that follow the single-tier architecture) to multi-tier applications (applications that follow the two-, three, or n-tier architecture)

- Single-tier architecture
    - A single executable file handles all functions relating to the user, business, and data service layers.

- Two-tier architecture
    - Divides an application into the following two components:
        - Client
        - Server

- Three-tier architecture
    - All the three service layers reside separately, either on the same machine or on different machines.

- n-tier architecture
    - Uses business objects for handling business rules and data access.
    - Has multiple servers handling business services.

The .NET Initiative

- The introduction of the Internet and its rapid growth in the recent past has led to the development of a number of new Technologies.

- One of the most important requirements of such applications is the ability to interchange information across platforms and to benefit from the functionality provided by other applications.

- Assembly: An assembly is a single deployable unit that contains all the information about the implementation of classes, structures, and interfaces.

- The Common Language Runtime

    - Provides functionality such as exception handling, security, debugging, and versioning support to any language that targets it.

    - Can host a variety of languages and offer a common set of tools across these languages, ensuring interoperability between the codes.

- The following diagram depicts the process of compilation and execution of a .NET application:

- Provides the following features:

    - Automatic memory management

    - Standard type system

    - Language interoperability

    - Platform independence

    - Security management

    - Type safety

Advantages of the .NET Framework

- Some advantages of the .NET Framework are:

    - Consistent programming model

    - Multi-platform applications

    - Multi-language integration

    - Automatic resource management

    - Ease of deployment

ADO.NET

- Is a model used by Visual Basic .NET applications to communicate with a database for retrieving, accessing, and updating data?
- Uses a structured process flow to interact with a database.

ADO .NET Data Access

Most applications need data access at one point of time making it a crucial component when working with applications. Data access is making the application interact with a database, where all the data is stored. Different applications have different requirements for database access. ASP.NET uses ADO.NET (Active X Data Object) as it's data access and manipulation protocol, which also enables us to work with data on the Internet. Let's take a look why ADO.NET came into picture replacing ADO.

Evolution of ADO.NET

The first data access model, DAO (data access model) was created for local databases with the built-in Jet engine which had performance and functionality issues. Next came RDO (Remote Data Object) and ADO (Active Data Object) which were designed for Client Server architectures but soon ADO took over RDO. ADO was a good architecture but as the language changes so is the technology within it. With ADO, all the data is contained in a record set object which had problems when implemented on the network (Internet) and penetrating firewalls. ADO was a connected data access which means that when a connection to the database is established the connection remains open until the application is closed, which raises concerns about database security and network traffic. And also as databases are becoming increasingly important and as they are serving more people a connected data access model makes us think about its use. For example, an application with connected data access may do well when

connected to two clients, the same may do poorly when connected to 10 and might be unusable when connected to 100 or more. Also, open database

connections use system resources to a maximum extent making the system performance less effective.

Why ADO.NET?

To cope up with some of the problems mentioned above, ADO.NET came into existence. ADO.NET addresses the above mentioned problems by maintaining a disconnected database access model which means that when an application interacts with the database the connection is opened to serve the request of the application and is closed as soon as the request is completed. Likewise if a database is updated, the connection is opened long enough to complete the Update operation and is closed. By keeping connections open for only a minimum period of time ADO.NET conserves system resources and provides maximum security for databases and also has less impact on system performance. Also, ADO.NET when interacting with database uses XML by converting all the data into XML and using it for database related operations making them more efficient.

Features of ADO.NET

- Disconnected data architecture — Applications connect to the database only while retrieving and updating data.
- Data cached in datasets — ADO.NET is based on a disconnected data structure. Therefore, the data is retrieved and stored in datasets.
- Data transfer in XML format — ADO.NET uses XML for transferring information from a database into a dataset and from the dataset to another component.
- Interaction with the database is done through data commands.

ADO.NET Object Model Key Components of the ADO.NET Model

- Data Provider
    - Is used for connecting to a database, retrieving data, and storing the data.
- Is of two types:
    - OLE DB data provider

    - SQL Server data provider

Components of a Data Provider

- Connection
    - Used to establish a connection with a data source
    - Some commonly used properties and methods:
        - ConnectionString property
        - Open()method
        - Close()method
        - State property
- Data adapter
    - Creates a dataset and updates the database.
    - Handles data transfer between the database and the dataset through its properties and methods.
    - Displays the data through the process of table mapping.
    - Are of two types:
        - SqlDataAdapter
        - OleDbDataAdapter

- Data command
    - Is a SQL statement or a stored procedure that is used to retrieve, insert, delete, or modify data from a data source.

SYSTEM DESIGN

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4.1 SYSTEM DESIGN

The design document that we will develop during this phase is the blueprint of the software. It describes how the solution to the customer problem is to be built. Since solution to complex problems isn't usually found in the first try, iterations are most likely required. This is true for software design as well. For this reason, any

in the real world. That is, the structure of the software design should (whenever possible) mimic the structure of the problem domain.

The design should exhibit uniformity and integration. A design is uniform if it appears that one person developed the entire thing. Rules of style and format should be defined for a design team before design work begins. A design is integrated if care is taken in defining interfaces between design components.

The design activity begins when the requirements document for the software to be developed is available. This may be the SRS for the complete system, as is the case if the waterfall model is being followed or the requirements for the next "iteration" if the iterative enhancement is being followed or the requirements for the prototype if the prototyping is being followed. While the requirements specification activity is entirely in the problem domain, design is the first step in moving from the problem domain toward the solution domain. Design is essentially the bridge between requirements specification and the final solution for satisfying the requirements.

The design of a system is essentially a blueprint or a plan for a solution for the system. We consider a system to be a set of components with clearly defined behavior that interacts with each other in a fixed defined manner to produce some behavior or services for its environment. A component of a system can be considered a system, with its own components. In a software system, a

Data modeling defines primary data objects, composition of each data object, and attributes of the object, relationships between each object and other objects and between objects and the processes.

List of Tables:

Entity Users
Description: To store login details of the online users.

City	Char (30)	Not Null
State	Char (30)	Not Null
Phone	Number	Not Null
Product name	Char (50)	Not Null
Qty_supplied	Number	Not Null
Date_of_supply	Date	Not Null
Payment	number	Not Null
Mode_of _payment	Char (30)	Not Null

Entity : Feedback
Decription: To store feedback details.

Field	Type	Constraints
Name	Char (30)	Not Null
Phone	Char (30)	Not Null
Email	Char (30)	Not Null
Comment	Char(30)	Not Null

Entity: Service Details
Decription: To store details of the product.

Field	Type	Constraints

Address	Char (30)	Not Null
Product_Id.	Char(30)	Not Null
Type	Char(30)	Not Null
Service_Date	Char(30)	Not Null
Remark	Char(250)	Not Null

Entity: Showroom Details
Decription: To store details of the showroom.

Field   Type   Constraints

Describe the instance.

Make reference to another instance in other table.

Relationships: Data objects are connected to one another in a variety of different ways. We can define a set of object relationship pairs that define the relevant relationships.

D   <u>CARDINALITY AND MODALITY:</u>

- Cardinality:

The data model must be capable of representing the number of occurrences of objects in a given relationship. The cardinality of an object relationship pair is

       ◆ One-T0-One (1:1): An occurrence of object 'A' can relate to one and only one occurrence of object 'B' and vice versa.

       ◆ One-To-Many (1:N): One occurrence of object 'A' can relate to one or may occurrences of object 'B' but an occurrence of object 'B' can relate to only one occurrence of object 'A'.

       ◆ Many-To-Many (M: N): An occurrences of 'B' and an occurrence of 'B' can relate to one or many occurrence of 'A'.

- Modality:

In this module, servicing details of all the Mobiles is stored in the database. This database will be uploaded so that, if a user or customer who wants to service a Mobile can check his/her servicing details. There are some conditions and durations for servicing. Suppose a customer has purchased a Mobile from any showroom of SAMSUNG then he can get services from any authorized service center of the SAMSUNG.

Showroom_details

In this module, detail of all the showrooms is stored in the database. This database will be uploaded so that, if a user or a customer who wants to purchase a Mobile can check about the Samsung Mobile showrooms.

Owners

In this module, detail of the owners of the Mobile is stored in the database. This database will be uploaded so that, if a user or a customer who wants the services from any authorized service centers can be tracked.

Repair
Estimates

If a customer is interested in repair of their Mobile, he can fill a form and can get the repair estimate from the service center.

Service Tips

In this module, service tips are provided to the customers so that they can save their money.

Emails

In this module, Administrator can inform or remind all the customers whose service is due; this will be checked automatically from the database.

Admin
Panel

- To add Mobile details sold from a particular showroom.

- Add servicing details of the Mobiles.

- Add service centers details.

- Tips for repairing the mobiles

SOURCE CODE

CODE EFFICIENCY

Reviewing of Code efficiency for a module is carried out after the module is successfully compiled and all the syntax errors eliminated. Code efficiency review is extremely cost-effective strategies for reduction in coding errors in order to produce high quality code. Normally, two types of efficiency are carried out on the code of a module - code optimization and code inspection. The procedure and final objective of these two efficiency techniques are very different as discussed below.

OPTIMIZATION OF CODE

Code optimization is an informal code analysis technique. In this technique, after a module has been coded, it is successfully compiled and all syntax errors are eliminated. Some members of the development team are given the code a few days before the

One of the purposes of the testing is to validate and verify the system. Verification means checking the system to ensure that it is doing what the function is supposed to do and Validation means checking to ensure that system is doing what the user wants it to do.

No program or system design is perfect; communication between the user and the designer is not always complete or clear, and time is usually short. The result is errors and more errors. Theoretically, a newly designed system should have all the pieces in working order, but in reality, each piece works independently. Now is the time to put all the pieces into one system and test it to determine whether it meets the user's requirements. This is the best chance to detect and correct errors before the system is implemented. The purpose of system testing is to consider all the likely variations to which it will be subjected and then push the system to its

limits. If we implement the system without proper testing then it might cause the problems.

iques. This type of testing plays very important role in increasing the systems productivity. We have checked our system by using the integration testing techniques.

3. SYSTEM TESTING:

A part from testing the system to validate the functionality of software against the requirements, it is also necessary to test the non-functional aspect of the system. Some examples of non-functional tools include tests to check performance, data security, usability/user friendliness, volume, load/stress that we have used in our project to test the various modules.

System testing consists of the following steps:

1. Program(s) testing.
2. String testing.
3. System testing.
4. System documentation.
5. User acceptance testing.

6.3 TEST CASES

		TEST DATA Specifications for Sumsungmrc. com user form1				
	Test Date	22-August-11	**Programmer name:**	Self		
	Tested By:	Self	**Project Name**	Sumsung Mobile Service Centre Management System		

T.C ID				ACTUAL	RESULT
1				Ok	Pass
2				Ok	Pass
1				Ok	Pass
2				Ok	Pass
1				Ok	Pass
2				Ok	Pass
1				Ok	Pass
2				Ok	Pass

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1					Invalid	Fail
1					Invalid	Fail
1					Ok	Fail
1					Ok	Fail

		TEST DATA Specifications for Sumsungmrc.com add customer details		
Test Date	27-4-2010	Programmer name:	Pawan Kumar	
Tested By:	Pawan Kumar Name	Project	Administrative Support System For Sumsung Mobile Repairing Centre	
Customer ID		Customer ID	the fields are required.Can enter only numeric (Length upto 8 digit)	

both activities. ogether, they are o T_____ften

called V&V activities.

The major V&V activities for software development are inspection, reviews, and testing (both static and dynamic). The V&V plan identifies the different V&V

tasks for the different phases and specifies how these tasks contribute to the project V&V goals. The methods to be used for performing these V&V activities,

the responsibilities and milestones for each of these activities, inputs and outputs for each V&V task, and criteria for evaluating the outputs are also specified.

The two major V&V approaches are testing and inspections. Testing is an activity that can be generally performed only on code. It is an important activity and is discussed in detail in a later chapter. Inspection is a more general activity that can be applied to any work product, including code. Many of the V&V tasks are such that for them, an inspection type of activity is